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How the provision of childcare affects attitudes towards maternal employment

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Abstract

Do childcare institutions affect gender norms of individuals? I examine the introduction of childcare services and their impact on voters' support of policies promoting maternal employment. I address the inherent endogeneity between institutions and attitudes by exploiting regional variation in the regulations and provision of childcare for school children outside of regular school hours. My results show that the expansion of childcare for school children increases voters' support of policies promoting maternal employment. This indicates a direct effect of local institutions on voters' attitudes. I additionally show that as public costs of the new facilities increase, support of additional policies promoting maternal employment decreases.

Keywords: Childcare, Gender Norms, Maternal Employment, Policy Evaluation

JEL classifications: H23, H31, J13, J18

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1 Introduction

Life cycle employment patterns of women are largely shaped by children. Kleven et al. (2019) show that women's earnings decrease by 30 percent (Denmark) to 80 percent (Germany) after the birth of the first child and remain 20 percent respectively 60 percent below their counterfactual income ten years after the birth of their first child. Men's incomes, on the other hand, remain largely unaffected by the birth of a child, which further makes children the most prominent explanation for the persisting gender wage gap.[1]

Parental leave and subsidized childcare decrease the costs for women to return into the workforce after the birth of a child and have been seen as the most important instruments to reconcile work and family responsibilities.[2] New evidence suggests, however, that the large differences in the impact of children on mothers' employment across countries cannot be explained by differences in public policies (Kleven et al., 2019). The striking correlation between attitudes towards working mothers and women's decrease in earnings after the birth of a child suggests gender norms and culture as important factors behind this pattern. Given the importance of gender norms in fertility and employment decisions, it is crucial to understand their formation and how they are affected by the institutions in place.

This paper offers an empirical analysis of whether childcare institutions affect attitudes towards working mothers. It benefits from a quasi-experimental setting in Switzerland, which creates discontinuity in regulations and in the actual provision of lunchtime and after-school care, and thus allows for the application of a differences-in-differences strategy. It also benefits from federal ballots on family policy related topics revealing voters' preferences.

In 2010, the cantons of Bern and Zurich introduced a new regulation requiring municipalities to assess the demand for childcare for school children each year and to introduce lunchtime and after-school care in case of sufficient demand. Using municipalities in neighboring cantons as a control group allows me to apply a differences-in-differences design to estimate the effect of this new regulation on individuals' attitudes. The regulation additionally creates interesting variation within cantons, which allows me to study the effect of the actual provision of lunchtime and after-school care on individuals' attitudes towards working mothers: The regulation clearly states that if ten or more children are signed up for lunchtime and after-school care, the municipality is obligated to introduce these facilities. There are thus some municipalities which are required to introduce lunchtime

[1] Studies on the role of parenthood in explaining gender gaps are e.g. Waldfogel (1998); Correll et al. (2007); Paull (2008); Bertrand et al. (2010); Goldin (2014); Adda et al. (2017); Angelov et al. (2016); Kleven et al. (2019); Bütikofer et al. (2018).

[2] Olivetti and Petrongolo (2017) give an excellent overview of family policies across high-income countries and effects of parental leave and early childhood education and care on female employment rates, the gender employment gap, gender earnings gap, and fertility rates.

and after-school care as a consequence of the new regulation, while others are not. I also exploit this feature for the analysis.

I find that the introduction of lunchtime and after-school care increases support for policies promoting maternal employment by up to 3 percentage points, with a larger effect found in municipalities where public costs of the new facilities are low. After controlling for actual provision, I find a negative effect of the regulation, with support of public policies promoting maternal employment decreasing by up to 10 percentage points. Since the total public costs of lunchtime and after-school care are borne by all municipalities in the cantons with regulation and not only by municipalities with actual provision, this is in line with the result that the increase in support is larger when costs are lower. As a robustness test, I draw upon a large number of ballots on healthcare related topics voted upon in the same time period considered for the main analysis. This allows me to show that the three groups of municipalities, municipalities in cantons with no regulation, municipalities in cantons with regulation and no provision, and municipalities in cantons with regulation and provision, do not generally show diverging trends, thus affirming my identifying assumptions.

My analysis is inspired by and contributes to a growing literature focusing on attitudes towards maternal employment as an important explanation for the persisting gender earnings gap. The birth of a child creates a striking divergence in earnings' paths of men and women, as documented e.g. by Angelov et al. (2016); Bütikofer et al. (2018); Kleven et al. (2019). Kleven et al. (2019) show that these differences across countries are strongly related to attitudes towards working mothers. Childcare and employment decisions of mothers are met with opinionated societal feedback and are strongly impacted by social norms. Understanding how social norms are formed is therefore crucial in explaining the differing effects of children on female earnings.

Culture has been shown to be an important factor in determining gender norms. Using historical data, Alesina et al. (2013) show that descendants of societies which traditionally practiced plough agriculture have less equal gender norms today. Intergenerational transmission is another important driver of gender norms (see e.g. Kleven et al. 2019; Fernandez and Fogli 2009). Another factor are the institutions one is exposed to. Slotwinski and Stutzer (2018) show that the introduction of female suffrage leads to substantial changes in individuals' norms and outcomes even in the medium term. Exploiting the German separation and later reunification, Bauernschuster and Rainer (2012) show that individuals exposed to East German institutions promoting female employment hold more equal gender attitudes than West Germans after reunification. Unterhofer and Wrohlich (2017) study a parental leave reform in Germany in 2007, which introduced the option for fathers to take part of the parental leave, and its effect on grandparents' attitudes. They find that mothers of exposed fathers have significantly more positive attitudes towards working mothers but find no effect for fathers. Their study shows that there is a short term effect of institutions on attitudes of individuals in the immediate environment and in the very short term.

My paper also focuses on the short term effect of the introduction of childcare institutions on gender attitudes of individuals. It contributes to the current literature by considering the effect of institutions on attitudes of the total population, instead of only focusing on the effect on the immediately exposed group.

This study is related to a paper by Felfe et al. (2016), who also exploit the introduction of the same regulation and its effect on parents' employment. However, they only have cross sectional data on childcare provision and employ an IV strategy using the regulation I exploit as an instrument. They find that the introduction of lunchtime and after-school care increases maternal full-time employment, with no effect on fathers and no change in participation rates. I cannot replicate their empirical design since I have to control for level differences between the treated and control groups, which they cannot do in their setting.

The rest of the paper has the following structure. The next section provides information on the institutional background serving as a backdrop to this analysis and demonstrates how vote outcomes are an interesting approach to measuring attitudes. Section 3 contains the main theoretical considerations and the empirical identification strategy. Section 4 presents the data, some descriptive statistics, and graphical depiction of preliminary results. Section 5 presents the empirical results. Section 6 discusses the costs of public institutions as a potential mechanism driving the results and presents some robustness analyses. Section 7 concludes.

2 Institutional Background

In Switzerland, life cycle employment patterns differ strongly between genders and are largely shaped by children. While female labor force participation has steadily been increasing since 1980 and is now among the highest of OECD countries, women's weekly hours are among the lowest and there is a large gap in hours worked between women and men.

School schedules are not promotive of maternal employment either. The dates and timetables of public school in Switzerland are set by each of the 26 cantons independently.[3] Nevertheless, most schools have core times from around 8.30 a.m. until 11.30 a.m. and then from 1.30 p.m. until 3 p.m.. Outside of these core hours, there is generally no responsibility for the schools to offer any supervision. Usually, there is no school on one or two afternoons per week. Private or public childcare facilities increasingly cover these hours. The cantons and municipalities share the responsibility for the authorization, regulation and supervision of formal childcare facilities. The allocation of the different

[3]Compulsory schooling (classes 1 to 9) and pre-school education (1 to 2 years, approximately ages 4 to 6) are authority of the cantons and municipalities. Cantons can also set curricula independently. There has been more and more coordination between cantons recently and since 2011, there have been national educational objectives which cantons are required to achieve. Compulsory schooling and pre-school education are financed by the municipalities and cantons through municipal and cantonal taxes.

tasks among the two government levels varies from canton to canton. However, the cantons generally have more authority.

If a school provides lunchtime and after-school care, this generally means that, for a fee, children can stay at school before school, during the lunch break, and in the afternoon. The school serves breakfast, lunch, and a small snack in the afternoon and there are a distinct number of caretakers, usually one caretaker per ten children, certified by the cantonal school authority. Facilities must also be such that there is sufficient room for pupils to do their homework, rest, and play.

In 2010, the cantons of Bern and Zurich introduced a new regulation obliging municipalities to assess the demand for childcare needs of school children's parents regularly. If ten or more children are signed up for any time slot,[4] the municipality must provide this service. I exploit this change in regulation for the empirical analysis. The cantons of Basel City, Graubuenden, Lucerne, Neuchâtel, and Schaffhausen have since introduced similar regulations. All other cantons did not have any similar regulation as of 2016.

A federal impulse program implemented to create more childcare places helped municipalities cope with the large initial costs of the regulation. The program was introduced in 2003 with the goal of expanding childcare facilities, which would in turn help parents reconcile work and family life. Subsidies are awarded to new facilities or to facilities expanding their supply substantially. The funding covers initial fixed costs, which helps facilities cope with low initial capacity utilization. Financial assistance is awarded to both private and public facilities which fulfill quality requirements and which can show that there is demand for additional facilities. From its introduction until the year 2016, the program financed 1,223 childcare facilities for school children.[5]

Costs of childcare are borne by parents with some municipalities or cantons granting subsidies either to childcare facilities directly or to parents. In both, Bern and Zurich, parental costs depend on parents' income. In Bern, municipalities are refunded by the canton for total labor costs minus parental contributions. Costs after redistribution and parental contributions are borne by the municipalities. Ceteris paribus, an increase in taxes in the cantons introducing new childcare facilities is expected.

In Switzerland, income taxes are raised by the municipalities, the cantons, and the federal government. Cantons are free to set the tax schedule, whereas municipality taxes correspond to a multiple of the cantonal taxes. Municipality taxes thus have no impact on the redistribution across incomes within a canton.

Approximately four times a year, Swiss citizens over the age of 18 have the right to vote. There are typically a number of bills which are voted upon on the same day. Voters

[4]One slot refers to the time slot before school, at lunchtime, or in the afternoon. If a school offers care for all time slots, this would be three times a day, five times a week, i.e., there is a maximum of 15 slots per week.

[5]More information can be found on the homepage of the Federal Social Insurance Office. The law came into force on 1 February 2003 and has been extended multiple times until 2019, and till 31 December 2015, 300 million CHF was awarded. It is called "Federal Law on Financial Support for Childcare" ("Bundesgesetz über Finanzhilfen für familienergänzende Kinderbetreuung").

receive an envelope containing the ballot as well as a small booklet with information on the topics voted upon approximately one month prior to the voting date. Voters can either choose to return the ballot in the anonymized envelope prior to the vote date or cast their vote directly in polling booths. Some cantons have introduced the option to vote electronically, an option which is also available for Swiss citizens living abroad. The topics voted upon most frequently include healthcare, taxes, welfare, drug policy, public transport, immigration, asylum, and education (Cormon, 2014).

There are three types of votes: initiatives, legislative referendums, and constitutional referendums. Initiatives allow Swiss citizens to propose constitutional amendments and new laws. For an initiative to come to a vote, a total of 100,000 valid signatures, which amounts to approximately 2% of the Swiss electorate, must be collected by the initiators. Referendums allow the electorate to challenge laws approved by the parliament. For these legislative referendums, 50,000 valid signatures must be collected by the opposition. In case of constitutional amendments proposed by the parliament, federal votes are mandatory and are called constitutional referendums. Constitutional referendums and initiatives proposing a constitutional change require that in addition to the majority of voters, a majority of cantons must approve.[6] All other referendums and initiatives only require a share of yes votes of 50 percent or higher in order to be passed. For a more detailed description of the Swiss system, see e.g. Linder (2010).

2.1 Measuring Attitudes towards Maternal Employment

I propose vote outcomes of different national ballots on family policy as a measure for individuals' attitudes towards maternal employment. Vote outcomes as a measure of social norms have been used, e.g., by Stutzer and Lalive (2004) or Slotwinski and Stutzer (2019). I exploit four ballots on family policy taking place in Switzerland from 1999 to 2013. The first two ballots are related to maternity leave, the third ballot is on the expansion of childcare, while the fourth ballot is concerning tax deductions for families.

Maternity leave policies have long been part of the political discourse in Switzerland. In 1945, a maternity protection period of eight weeks after the birth of a child was introduced. During this time, mothers were not allowed to work and their employment contract could not be terminated. After that, there were several attempts to introduce paid maternity leave. The first ballot considered in this study took place in 1999 and was the fourth attempt to introduce paid maternity leave. The bill proposed 14 weeks of paid maternity leave for all mothers, paid through the value added tax, and was rejected by 61 percent of voters. The 2004 bill proposed 14 weeks of paid maternity leave with an income replacement of 80 percent only for mothers who were employed prior to giving

[6]More accurately, 20 out of the 26 cantons have one vote each, the other 6, the so-called half cantons, have half a vote each (the half cantons are Basel-City, Basel-Country, Nidwalden, Obwalden, Appenzell-Innerrhoden, and Appenzell-Ausserrhoden). A majority of 12 votes is therefore sufficient to reach the cantonal majority. A canton's vote is determined by the popular vote of the canton's population. If a majority of the canton's population votes in favor, the whole cantonal vote is regarded as in favor of the proposed bill.

birth, paid for through employers' and employees' social insurance contributions, and was approved by 56 percent of voters. The next national ballot on family policy took place in 2013. The bill proposed a constitutional change where cantons and municipalities are obligated to regularly assess demand for childcare institutions and provide an adequate supply of such. If cantons were not to fulfill this requirement, the federal government could intervene. This would imply a reform compared to the status quo, with the whole responsibility lying at the cantonal level. The bill was supported by a majority of voters (54 percent) but only 11 of the 26 cantons had a majority and hence, this constitutional change was not implemented. The last bill I consider is an initiative voted upon in November 2013. Families can deduct part of the costs of formal childcare from their taxable income. The initiative proposed the same deduction to be attributed to families where one parent stays home to take care of the children. 42 percent of the population voted in favor of this amendment. Figure 1 shows the results of the four votes at the municipality level.[7]

Figure 1 shows that approval rates are generally highest in the French speaking part of Switzerland (i.e., the cantons in the west) and in the Ticino, the southernmost and only exclusively Italian speaking canton of Switzerland. Support for the welfare state is generally higher in the French speaking part of Switzerland and provision of childcare has also traditionally been much higher in the French speaking part than in the German speaking part.[8] The same is true for the Ticino: The school system has long been such that it allows for the accommodation of work and family responsibilities.

In the empirical analysis, I use vote outcomes as a proxy for voters' revealed attitudes towards maternal employment. I argue that individuals who support maternal employment will in general be more likely to vote in favor of any institutions facilitating the compatibility of employment and family responsibilities and vote against promotion of the traditional family model.[9] Furthermore, it seems reasonable to assume that in the first three ballots, individuals who are in favor of maternal employment will vote yes. However, when it comes to the 2013 bill, I argue that voters supporting the traditional family model will vote yes. In order to compare the results of the four ballots, going forward I will consider the share of no votes for this last ballot.

[7]Data on approval rates are publicly available from the Swiss Federal Statistical Office and for all federal ballots since 1981 (https://www.bfs.admin.ch/bfs/de/home/statistiken/politik/abstimmungen.html). Detailed information on all ballots is available from the Swiss Federal Chancellery (https://www.bk.admin.ch/bk/de/home/dokumentation/abstimmungsbuechlein.html). The information is available in German, French, and Italian.

[8]Steinhauer (2018) exploits the border between the German and French speaking parts of Switzerland to examine how attitudes towards working mothers are related to employment and fertility decisions of women. He finds that German-born women are 15 to 25 percent less likely to work as mothers, and 20 to 25 percent more likely to remain childless by the age of 50 compared to women born in the French speaking part, a difference which is attributed to the difference in attitudes towards working mothers.

[9]Table A.3 in Appendix A.2 shows that based on individual level data, individuals' party affinity, which proxies their attitudes, is a strong predictor of whether they vote yes or no and the predictive power is similar across the four ballots.

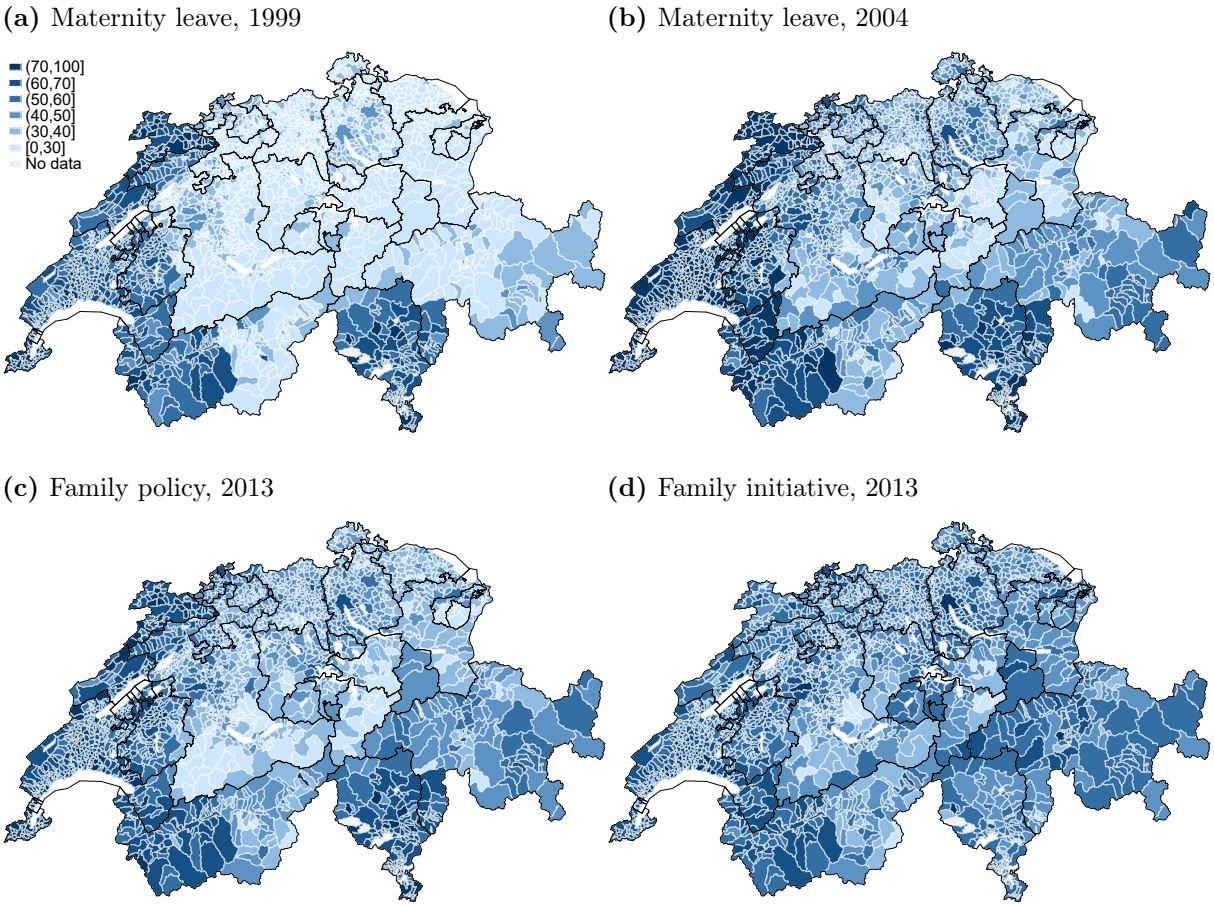

Figure 1: The graphs show average approval rates for each municipality in Switzerland and for the four bills on policies promoting maternal employment considered in this analysis. White lines mark municipality borders; black lines mark cantonal borders. Light blue areas indicate low approval rates and dark blue areas indicate high approval rates.

The campaigns leading up to the ballots underline the similarities of the four ballots. The Swiss People Party, a well-funded populist party and the most prominent when it comes to policy campaigns in the last two decades, has been fighting bills promoting maternal employment, suggesting the introduction of the proposed institutions would lead to unhappy "state children". Examples of campaign posters can be found in Appendix A.1.

Post vote survey data also offer support that the vote results are a good measure of voters' attitudes towards working mothers, with a positive correlation between voters' attitudes towards maternal employment and the probability that they support a policy promoting the compatibility of work and family responsibilities.[10] As shown in Table A.2 in Appendix A.2, this correlation is robust to the inclusion of additional covariates de-

[10]The question asked in the survey is whether the voter wants a country which actively promotes women's equality or a country where neither women nor men receive preferential treatment. The effect must therefore be seen as a lower bound for the correlation of the support for maternal employment and the probability to support a policy targeting this. There are probably many voters who do not want favorable treatment of women but who still think that policies that allow parents to conciliate work and family responsibilities more easily are important.

scribing individual characteristics and, with a probability of voting yes which is 17 to 19 percentage points higher for voters supporting maternal employment, quite sizable. There is a positive albeit insignificant correlation for the fourth, the family initiative ballot, which may reflect that here, voting for the status quo implied preferences for maternal employment instead of the other way around.

In addition to measuring revealed instead of stated preferences, using vote outcomes has the advantage that the whole voting population is considered. In most surveys, only the population directly exposed to certain institutions is asked about their attitudes towards related topics. For instance, for the question posed in this paper, it is mostly parents or close relatives of the directly affected population that are asked about their attitudes towards childcare (see e.g. Kotsadam and Finseraas 2011; Bauernschuster and Rainer 2012; Unterhofer and Wrohlich 2017). However, one's own preferences are to a large extent driven by social norms, which can only be measured when the whole population is considered. Observing all voters allows me to investigate a policy feedback effect on the whole population and thus consider the total effect institutions have on individuals' attitudes.

On the other hand, there are risks to using vote outcomes as a measure of attitudes. However precise the bill may be, there are always multiple policy areas that may be affected by its implementation. Therefore, there are multiple different reasons why any individual may vote in favor of or against a certain bill, which range from personal affectedness to a tradeoff between multiple public goods one might not directly benefit from.

As discussed, there are typically a number of bills voted upon simultaneously. Polling in Switzerland is usually 40 to 50 percent, and individuals who vote on one bill on any specific day are more likely to also vote on the other bills. Voter selection is therefore affected by the entirety of bills voted upon on any specific date, which in turn may influence vote outcomes. Due to the differences-in-differences setting, however, this is only a problem if voter selection is affected differentially in the treatment and the control group.

3 Identification

3.1 Hypotheses

The division of work and family responsibilities within a couple are to a large extent driven by gender norms and gender roles. Interaction within social groups and imitation of role models play an important part in the formation of gender roles and norms (Bussey and Bandura, 1999). Persisting norms affect individuals' behavior either through their preferences or as constraints. Deviating from these norms is costly. In their seminal work, Akerlof and Kranton (2000) conceptualize these considerations by an identity parameter. Norms are to a large extent shaped by culture and transmitted intergenerationally, as

shown by (Alesina et al., 2013; Fernandez and Fogli, 2009; Fernández et al., 2004). Additionally, they are shaped and affected by institutions (see, e.g., Bowles 1998). In this paper, I study whether the introduction of a new institution has a short term effect on individuals' norms and attitudes.

In a setting with many small municipalities and where, in many cases, it is not economically necessary for both parents to have paid work, I argue that social norms concerning working mothers are very salient, which makes it costly to deviate (Akerlof and Kranton, 2000). I hypothesize that the introduction of lunchtime and after-school care sends the implicit signal that it is socially acceptable for mothers to be employed, which leads to a response in individuals' attitudes already in the short-term. Based on this hypothesis, I expect municipalities in cantons with regulation concerning lunchtime and after-school care to experience the following adjustments: First of all, individuals living in municipalities with demand above the threshold of 10 children experience an exogenous shock to their norms from the introduction of lunchtime and after-school care. This change could be through direct exposure, where parents benefit directly from lunchtime and after-school care for their children. Additionally, family, friends, and neighbors will experience second hand how family life changes through the presence of these institutions. Also, the presence of the institutions themselves implies that it is socially acceptable for mothers to work, making it less pricy to express personal preferences in favor of working mothers, which increases the likelihood to vote in favor of policies promoting maternal employment.

Secondly, the whole population in a canton with regulation concerning lunchtime and after-school care experiences a tax increase. Even though expenditures for lunchtime and after-school care constitute only a small part of total cantonal expenditures and the exact reasons for tax increases are usually not given, I nevertheless expect a negative effect on attitudes towards additional policies encouraging maternal employment through the (perceived) tax increase and its effect on the budget constraint. Since most of the public costs are incurred at the cantonal level, this negative effect is experienced by all municipalities in a canton with regulation, no matter whether they actually introduce lunchtime and after-school care or not. I analyze empirically whether the positive effect in the municipalities actually introducing school care outweighs the negative tax effect. In addition, there may be an increase in maternal labor supply, which might in turn create additional tax revenue. I abstract from this effect for simplicity. Graphically, the two effects discussed above are shown in Figure 2.

Figure 2a exemplifies the change in support of policies towards the promotion of maternal employment in municipalities with provision compared to municipalities with no provision of lunchtime and after-school care within cantons with regulation (treated cantons). Support of policies facilitating maternal employment has generally been increasing over the last decades. The line *treated canton, provisions* shows the change in support in the municipalities which introduce lunchtime and after-school care after the new regulation is introduced. This change in support consists of both a positive effect from the public good expansion, as well as a negative effect from the tax increase. Municipalities

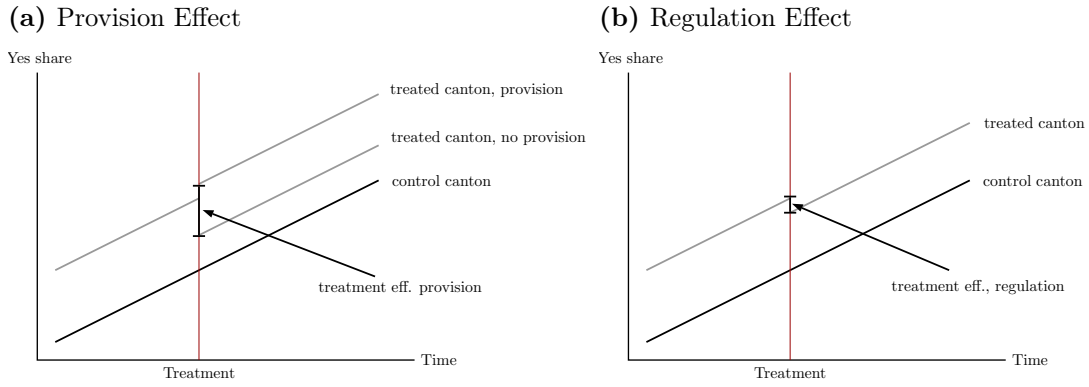

Figure 2: This graph exemplifies the opposing provision and regulation effects. The provision effect displays the exemplified change in approval rates in the cantons with regulation, distinguishing between municipalities for which the new regulation becomes binding (due to demand for lunchtime and after-school care surpassing the 10 kids threshold) and municipalities for which the new regulation does not become binding. The regulation effect shows the hypothesized jump in approval rates on family policy related topics in cantons introducing a new regulation promoting lunchtime and after-school care compared to cantons without a change in regulation, without controlling for actual provision.

in the treated canton but with demand below the threshold are not obligated to introduce lunchtime or after-school care and only experience the negative tax effect. The difference between the two lines displays the aggregate effect on voters' attitudes, controlling for the costs of the institutions as these are borne by all municipalities.

Figure 2b compares the aggregate effect of the introduction of the regulation concerning lunchtime and after-school care to the aggregate change in vote outcomes in the untreated cantons. Again, support of policies promoting maternal employment has generally increased over time. The control cantons experience no treatment and therefore no shock in the periods after the new regulation is introduced in the neighboring cantons. In the treated cantons, municipalities with no introduction and after-school care experience both a positive effect on attitudes, as well as a negative cost effect. Municipalities with no provision but which are located in a canton with regulation only experience the negative cost effect. Controlling for the positive effects on attitudes, the regulation effect thus shows the effect of the regulation experienced by all municipalities in cantons with regulation.

3.2 Empirical strategy

In order to identify the causal effect of the availability of school care provisions on voters' attitudes towards maternal employment, a setting with exogenous variation in childcare supply is needed. Such a setting is rare since the provision of lunchtime or after-school care is likely influenced by population preferences. I address this inherent endogeneity problem by exploiting the introduction of a new regulation in the cantons of Bern and Zurich, where all municipalities are now required by law to provide lunchtime and after-

school care in case of sufficient demand by the schools' children. I use municipalities in the neighboring cantons of Bern and Zurich as a control group. For the canton of Bern these are the cantons of Aargau, Lucerne, Obwalden, and Nidwalden. The cantons to the West and South are excluded from the analysis since these are cantons with a French speaking majority, which have displayed very different trends with regards to childcare. I also exclude the canton of Solothurn from the analysis as they introduce the same regulation as Bern and Zurich but data on the actual provision of lunchtime and after-school care is not available. The canton of Zurich shares a border with the cantons of Aargau, Zug, Schwyz, Thurgau, St. Gallen, and Schaffhausen. Furthermore, all municipalities with lunchtime and after-school care prior to the introduction of the new regulation are excluded from the analysis. These municipalities clearly have different preferences and characteristics than the rest (e.g., larger population, more support for left wing parties, higher taxes) and show different trends from the rest. This is partly captured in data analyses of Swiss national votes of the past three decades, which show that increasingly, there have been diverging preferences between cities and the country-side (Koseki, 2017). The small scale of Switzerland makes it equally likely that an individual in the control canton and in a treated canton works in the city (see, e.g., Felfe et al. 2016), which alleviates the concern that preferences of individuals commuting to the cities are affected differentially in the treatment and control region.

The regulation concerning lunchtime and after-school care creates two distinct groups of municipalities within a canton: those that are required to introduce lunchtime and after-school care after assessing demand and those that are not. If ten or more kids are signed up for any time slot, municipalities are required to provide these services. For a municipality to be obligated to introduce lunchtime and after-school care, it only requires a small fraction of parents in favor of such. Whether a municipality introduces school care does therefore not necessarily reflect the preferences of the majority of the population of a municipality. From the view of any single person, it is arbitrary, at least in the short term, whether they live in a municipality where lunchtime and after-school care are introduced.

The effects of the regulation and the provision are estimated applying a differences-in-differences (DiD) approach with two treatment margins: The provision effect measures the effect of actually introducing childcare facilities. The regulation effect shows the differential effect on vote outcomes from the introduction of the new regulation. The two treatment margins are estimated with the following equation:

$$yes_{mt} = \alpha + \gamma_1(provision_{mt} \times regulation_c \times post_t) + \gamma_2(regulation_{ct} \times post_t) + \rho_m + \delta_t + \beta X_{mt} + u_{mt} \quad (1)$$

Yes_{mt} refers to the share of voters approving of a bill voted upon at time t in municipality m. $Provision_{mt}$ indicates whether a municipality m has lunchtime and after-school care at time t. $Regulation_c$ refers to an indicator variable whether a municipality is either in the canton of Bern or Zurich and $post_t$ takes value 1 for the two ballots in the post

period and 0 for the two ballots which took place prior to the introduction of the new regulation. The municipality specific coefficient γ_1 shows the effect of introducing lunchtime and after-school care on vote outcomes. The canton specific coefficient γ_2 estimates the treatment effect of the introduction of the regulation on lunchtime and after-school care, i.e., the differential change in support of policies encouraging the compatibility of work and family responsibilities between cantons with and without regulation concerning lunchtime and after-school care, controlling for the effect of the actual provision. A vector of municipality fixed effects (ρ_m) and ballot fixed effects, estimated through δ_t, and are included. X_{mt} is a vector of municipality characteristics and u_{mt} indicates the error term. Henceforth, I will refer to the effect on ($provision_{mt} \times regulation_{ct} \times post_t$) as the **provision effect**, and to the effect on $regulation_{ct} \times post_t$ as the **regulation effect** for simplicity.

3.3 Identifying assumptions

The empirical strategy identifies two possible effects: a so-called **regulation effect** capturing the change in voters' support induced by higher perceived costs, and a **provision effect**, which captures the change in voters' support brought about by the actual provision of lunchtime and after-school care. Applying the strategy described above, the regulation effect is identified by comparing municipalities in cantons with regulation but without provision to municipalities in cantons without regulation. The provision effect is identified by a within canton comparison in cantons with regulation. I compare municipalities which are obligated to introduce lunchtime and after-school care to municipalities which are not obligated to introduce lunchtime and after-school care.

The identification of both effects relies on the common trends assumption. It requires that voting behavior between the groups of municipalities being compared evolves in parallel. For the identification of the regulation effect, this implies that in the absence of the regulation, vote outcomes in municipalities in cantons with regulation would have evolved in parallel to vote outcomes in municipalities in cantons without regulation. The causal identification of the provision effect requires that in the absence of the regulation *and* the actual provision, vote outcomes in municipalities introducing lunchtime and after-school care as a consequence of the regulation would have evolved in parallel to vote outcomes in municipalities in the same cantons but which were not required to introduce lunchtime and after-school care. The assumption that the regulation effect is the same in all treated municipalities is quite strong. It requires that the perceived tax effect is the same in municipalities with and without provision, which requires that individuals have the same reaction to a perceived tax increase whether they directly observe actual provision in their municipality or not. Column (1) in Appendix Table A.6 shows that the tax multiplier does not change differentially in municipalities with provision compared to municipalities with no provision from the pre- to the post-treatment period. This is encouraging as it means that at least the actual tax change is constant across municipalities treated by the regulation.

Another issue might be reversed causality. If residents in a municipality are more in favor of maternal employment, they are also more likely to introduce lunchtime and after-school care. All municipalities with lunchtime and after-school care before the new regulation was introduced are not considered in this analysis. For those municipalities, I cannot credibly argue that they are on the same paths regarding their preferences. In municipalities that did not have lunchtime and after-school care prior to the new regulation, there were clearly no strong preferences regarding such institutions, otherwise they would have introduced them endogenously. Differing attitudes that are time constant are taken care of with the municipality fixed effects. Attitudes are strikingly persistent in the absence of institutional changes (see, e.g., Alesina et al., 2013; Teso, 2019; Giuliano, 2017). I thus argue that similar trends in attitudes in the pre-treatment period are indication enough that they would have continued to evolve in parallel in the absence of the reform.

4 Data and Descriptives

Data on vote outcomes and municipality characteristics are freely available on the website of the Swiss Federal Statistical Office.[11] I merge this data with data on income tax rates, which was provided by Parchet (2014). Data on the provision of lunchtime and after-school care for the canton of Zurich used to be freely available on the website of the cantonal statistical office.[12] For the canton of Bern, the same data was kindly provided by the cantonal department of education (Erziehungsdepartement Bern). I additionally include data on facilities receiving financial assistance through the federal impulse program implemented to create more childcare places. These data are freely available on the webpage of the Federal Social Insurance Office.[13]

In Switzerland, there have been a lot of municipality mergers over the years. All data are aggregated and merged such that the data correspond to the municipalities existing in 2016. In 2016, there were 2240 municipalities. Together, the municipalities in the cantons included for the analysis had a population of 4.7 million in the year 2013. This corresponds to about 60 percent of the Swiss population. Excluding all municipalities with lunchtime or after-school care in 2004 leaves me with 32 percent of the total population of Switzerland or 56 percent of the population in the cantons considered.

Enforcement of lunchtime and after-school care in the cantons of Bern and Zurich is contingent on the number of parents who sign up their kids for these structures. Figures 3 and 4 indicate the presence of lunchtime and after-school care for all municipalities in the

[11] Vote outcomes: www.bfs.admin.ch/asset/de/px-x-1703030000_101
Election National Council: www.pxweb.bfs.admin.ch/pxweb/de/px-x-1702020000_105
Population: www.bfs.admin.ch/bfs/de/home/statistiken/kataloge-datenbanken/tabellen.assetdetail.3262106.html

[12] The data was downloaded on 22 November, 2016 from the website of the cantonal statistical office and for the years 2004 to 2013. However, when I last checked, the data was no longer publicly available.

[13] https://www.bsv.admin.ch/bsv/de/home/finanzhilfen/kinderbetreuung.html. The data are only available on the German, French, or Italian version of the page, not on the English version.

cantons of Bern and Zurich in the school year 2003/2004, before the introduction of the new regulation, and for the school year 2012/2013. Since data on the prevalence of lunchtime and after-school care in the year 2004 are only available for the canton of Zurich, I proxy the supply in 2004 using data from the federal impulse program. The data distinguish whether a facility is new or whether they receive financial aid to expand the current supply, and on the exact date they start receiving financial aid. I define all municipalities with a facility starting to receive financial aid for a new facility in 2006 or earlier as having lunchtime and after-school care prior to the introduction of the new regulation. Additionally, I define all municipalities with a facility expanding its supply in 2009 or earlier as having lunchtime and after-school care before the new regulation was introduced.[14]

(a) School year 2003/2004 **(b)** School year 2012/2013

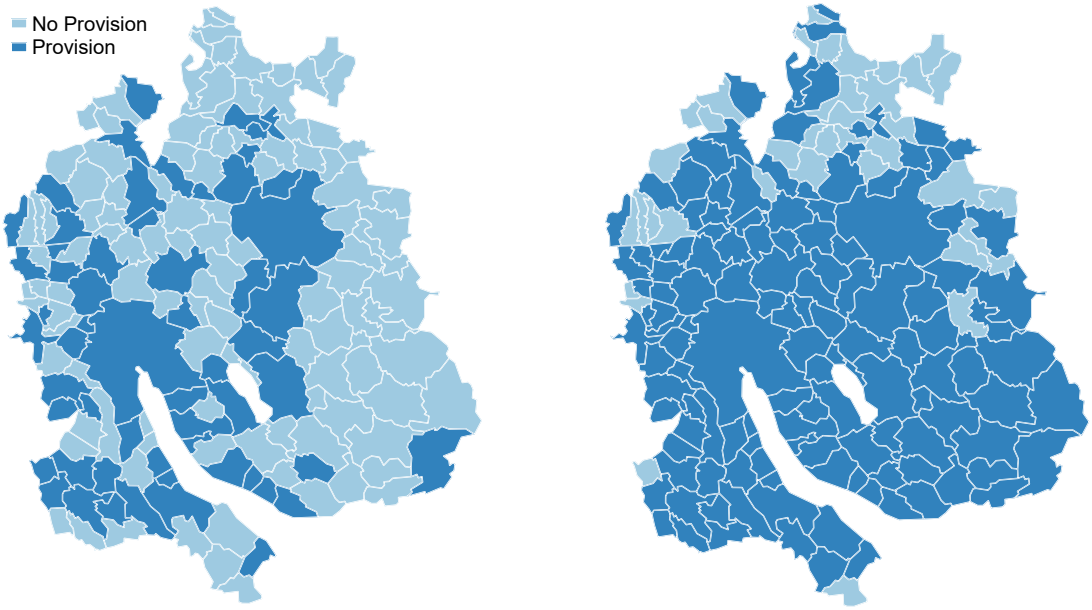

Figure 3: Prevalence of lunchtime and after-school care in the canton of Zurich before and after the introduction of the new regulation. Light blue areas show municipalities which do not offer lunchtime or after-school care in the given period, whereas dark blue areas show municipalities with lunchtime and after-school care in the given period.

Figure 3 shows the prevalence of lunchtime and after-school care in the canton of Zurich before and after the introduction of the new regulation. One immediately notices a cluster of municipalities with after-school care in and around the city of Zurich and along the lake of Zurich.[15] All of these municipalities describe the metropolitan area of Zurich. In the canton of Zurich, the municipalities which adopted lunchtime and after-

[14]The results are stable to changing the cutoff to an earlier or later year for new and expanding facilities respectively.

[15]The city of Zurich is the largest municipality of the canton and can be found at the northern end of the lake of Zurich, the white narrow area entering the canton from the south.

school care are mostly in the more rural areas further away from the metropolitan areas of Zurich and Winterthur.

The canton of Bern is larger in terms of the area it covers and has more rural municipalities. As in Zurich, the municipalities which have lunchtime and after-school care prior to the introduction of the new regulation are mostly in the metropolitan areas around the largest cities, Bern and Bienne, as shown in Figure 4. Since the canton of Bern has more rural municipalities than the canton of Zurich, there are also more municipalities introducing lunchtime and after-school care in Bern.

(a) School year 2003/2004 **(b)** School year 2012/2013

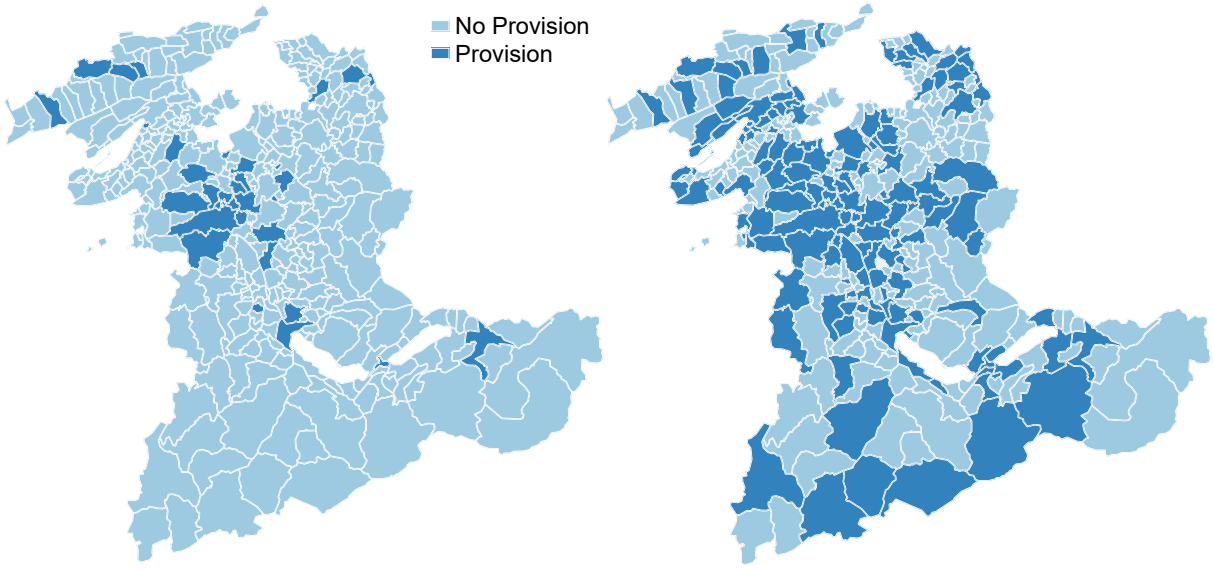

Figure 4: Prevalence of lunchtime and after-school care in the canton of Bern before and after the introduction of the new regulation. Light blue areas show municipalities which do not offer lunchtime or after-school care in the given period, whereas dark blue areas show municipalities with lunchtime and after-school care in the given period.

The municipalities in the cantons considered can be assigned to one of four groups: The first group consists of municipalities which have lunchtime and after-school care prior to the introduction of the new regulation, which are excluded from the analysis. The remaining municipalities can be placed into three distinct groups: Within the cantons with regulation, one group consists of all municipalities introducing lunchtime and after-school care as a consequence of the regulation, and another group consists of all municipalities where less than 10 children sign up for any slot and for which the new regulation is therefore not binding. The third group consists of the remaining municipalities, i.e., the municipalities in the control cantons, where there is no change in regulation. Figure 5 shows the population weighted means in vote outcomes for these three groups and for the four federal ballots used in the analysis.

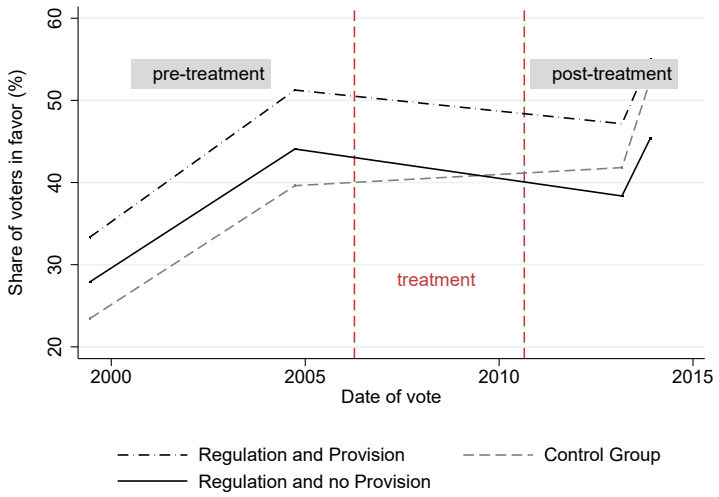

Figure 5: Vote outcomes of bills promoting maternal employment in the municipalities with no regulation (mun. in the control cantons), municipalities with regulation but no provision, and municipalities with regulation and provision. The results displayed show population weighted means in vote outcomes for each of the three groups.

Before 2010, i.e., before the new regulation became binding in the cantons of Bern and Zurich, support for policies promoting maternal employment was on average lowest in the municipalities in the control group and highest in municipalities with regulation and provision. The pre-treatment differences cancel out in the DiD setting. After the treatment, a convergence in vote outcomes between cantons with and without regulation is observed: The average approval rate is now lowest in municipalities with regulation and no provision and still highest in municipalities with regulation and provision. This raw graph indicates that the introduction of the new regulation has, on average, a negative effect on support of policies encouraging maternal employment, suggesting that the negative effect from the increase in public expenditures outweighs the positive effect on voters' attitudes from the actual provision.

5 Results

The DiD estimates of Equation (1) measure the effect of the introduction of lunchtime and after-school care at public schools (γ_1) and the effect of only the regulation (γ_2). Table 1 shows these measures for different specifications. All four specifications estimate Equation (1) using OLS. The observation unit are municipalities and the dependent variable are vote outcomes of four ballots on family policy related topics, taking place between 1999 and 2013. To account for serial correlation, standard errors are clustered at the municipality level.

The dependent variable in all four specifications is the approval rate on topic t in municipality m. In specifications (1) , (3), and (4), the sample consists of all municipalities in the treated cantons Bern and Zurich, as well as the ten neighboring control cantons, except for municipalities which already had lunchtime or after-school care prior to the

Table 1: DiD estimates: Effect of lunchtime and after-school care on vote outcomes

	(1)	(2)	(3)	(4)
Provision	2.91***	2.50***	2.08***	1.80***
	(0.597)	(0.702)	(0.579)	(0.600)
Regulation	-9.71***	-8.72***	-7.66***	
	(0.503)	(0.543)	(0.930)	
Municipality FE	Yes	Yes	Yes	Yes
Ballot FE	Yes	Yes	Yes	Yes
Inc. tax	No	No	Yes	No
Canton x ballot FE	No	No	No	Yes
Number of mun.	915	742	915	915
Number of obs.	3658	2966	3658	3658

Notes: This table presents the DiD estimates, $\hat{\gamma_1}$ and $\hat{\gamma_2}$, of Equation (1). The regulation coefficient shows the differential change in vote outcomes of municipalities in cantons with regulation compared to municipalities in cantons without regulation regarding lunchtime and after-school care in public schools, controlling for the differences in provision within the treated cantons. The provision coefficient estimates the differential change in vote outcomes in municipalities which introduce lunchtime and after-school care as a consequence of the new regulation compared to those which do not. *Inc. tax* consists of the income tax (cantonal + municipality + church taxes) for singles, married couples with no children, and married couples with two children, each for yearly net incomes of CHF 80,000.-, 100,000.-, 150,000.-, and 200,000.-. In specification (4), *canton* × *municipality FE* are applied, and the *regulation* coefficient can no longer be identified due to collinearity. In all specifications, population weights are applied to account for the fact that municipalities differ in their population. The numbers in parentheses show the standard errors, clustered at the municipal level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

introduction of the new regulation. Municipality and time fixed effects are included in all specifications.[16] The variable *provision* takes value 1 for all municipalities which have lunchtime and after-school care after the regulation requiring them to do so in case of sufficient demand is introduced. It takes value 0 for all other municipalities and for the pre-treatment period. The variable *regulation* takes value 1 for all municipalities in the cantons with regulation (Bern and Zurich) in the post-treatment period and value 0 in the pre-treatment period and for all municipalities in the neighboring cantons.

The estimates in specification (1) show that as a consequence of the introduction of lunchtime and after-school care, support for policies promoting maternal employment increases by 2.91 percentage points compared to municipalities with no provision. However, this positive effect is more than offset by a decrease in support of 9.71 percentage points compared to the control group.

[16] The regulation variable is defined at the cantonal level, taking value one for the cantons with regulation of lunchtime and after-school care and zero otherwise. It can therefore not by identified in the presence of cantonal time trends, as applied in specification (4).

Specification (2) shows the same effect for the sub-sample of municipalities where a majority of voters voted against the 2004 bill on maternity leave to make sure that the effect is not purely driven by municipalities which already have positive attitudes towards maternal employment prior to the introduction of the new regulation. The 2004 bill is used to make this distinction as this bill was approved at the ballots by a majority of voters (56 percent). An approval rate below 50 percent therefore indicates approval below the Swiss average; these municipalities were outvoted by the rest of Switzerland. This restriction reduces the sample to 742 municipalities. Both the provision effect and the regulation effect become slightly smaller through this restriction, remain, however, highly significant.

In specification (3), tax rates for different income levels and family types are added. It is of course not feasible to control for all tax rates for all family types. The inclusion of these should decrease the regulation effect at least by some its real part, if it is driven by a tax increase. If the regulation effect is purely driven by the perception of a tax increase, this will not be captured by this inclusion. The regulation coefficient in specification (3) decreases by 21 percent compared to the regulation effect found in specification (1), which is based on the same sample of municipalities. While I cannot conclude that the regulation effect is purely driven by a real tax increase, this solidifies the hypothesis that the introduction of the new regulation leads to a reduction of approval rates due to a (perceived) tax increase.

Specification (4) includes *canton* $\times$ *ballot fixed effects*. In their presence, the *regulation* effect can no longer be identified due to collinearity. However, it allows me to control for cantonal changes over time which are homogeneous across municipalities, such as changes in the cantonal tax schedule. In Appendix Tables A.5 and A.6, I take a closer look at how such variables might change differentially between treated and control cantons, and within the treated cantons across municipalities with provision and without. I look at the municipality tax multiplier, voter turnout, the birth rate as a fraction of a municipality's population, as well as the immigration and emigration rates. These variable are not directly added to the estimation, since they might be bad controls. Especially voter turnout and immigration rates might be mechanisms rather than changes happening independently from the treatment. It is conceivable that changes in tax rates lead to migration across cantonal borders, or that the introduction of lunchtime and after-school care attracts families with positive attitudes towards maternal employment to a municipality. It is further possible that voter turnout declines in municipalities with provision as there is no longer the same necessity for investments towards institutional childcare. Appendix Table A.5 shows the results of regressing these variables on *provision* and *regulation*, including municipality fixed effects and ballot fixed effects. The results show that in municipalities with regulation, voter turnout and the emigration rate increase compared to the control cantons. The increase in the emigration rate is in line with the theory on tax mobility: If taxes increase, individuals are more likely to move away, e.g., to a neighboring canton. It is less clear why we would see a positive correlation between regulation

and turnout. Considering *regulation* and *provision* jointly, there is a significant increase in voter turnout in municipalities with regulation and no provision compared to municipalities with no regulation, while municipalities with regulation and provision move in parallel to municipalities with no regulation. An explanation could be that individuals in municipalities with just regulation but no provision want to make sure that there were no additional subsidies for maternal employment, which is reflected in increased turnout.[17] Compared to that, municipalities with provision experience a benefit in addition to the costs, which leads to no change overall compared to the municipalities in cantons with no regulation.

Appendix Table A.6 shows the same results as Table A.5 but allowing for *canton* × *ballot fixed effects*. First, this allows me to additionally look at the tax multiplier as a dependent variable, as the *canton* × *ballot fixed effects* control for changes in the cantonal tax schedules. As detailed above, within the cantons with regulation, I do not expect the municipality tax multiplier of municipalities with provision to change differently to the tax multiplier of municipalities with no provision; the public costs of the new facilities are born by the cantons. This is confirmed in column (1) of Table A.6. The tax multiplier does not change differentially in municipalities with provision compared to municipalities with no provision. Even after controlling for *canton* × *ballot fixed effects*, there is still the negative change in voter turnout as described above. There is also a slight reduction in birth rates of 0.5 percent, which is significant at the 10 percent level. This change seems, however, arbitrary since, if anything, we would expect birth rates to increase if there are more childcare facilities. While immigration into municipalities is no longer significant and much smaller than in the specification without *canton* × *ballot fixed effects*, it is still sizable and pointing towards increased migration into municipalities with provision within cantons with regulation.[18]

The results suggest that the introduction of lunchtime and after-school care increase support of policies facilitating maternal employment by 1.8 to 2.9 percentage points. The regulation itself seems to decrease support for policies facilitating maternal employment by 8.7 to 9.7 percent, which can be explained by (perceived) public costs of these institutions, as shown in specification (3). This point will be analyzed in more detail in Section 6.1.

[17] Appendix Table A.7 indeed shows that turnout and voter support are negatively correlated.

[18] Appendix Table A.7 shows the same estimations as Table 1 including all of these variables as covariates. If the *provision* and *regulation* effects are purely driven by changes in attitudes or perceived instead of real tax effects, they should still be present after the inclusion of these covariates. While they decrease in magnitude in absolute terms, both effects persist in the presence of these covariates in most specification. While still positive, the provision effect is no longer significant when *canton* × *ballot fixed effects* are included in addition to the covariates. I can therefore not reject the hypothesis, that the provision effect is purely driven by real reactions to the introduction of lunchtime and after-school care.

6 Discussion

6.1 Public Expenditures and Vote Outcomes

Cantons in Switzerland are free in setting the cantonal tax schedule and deductions. It is therefore not feasible to consider the full tax schedule for all incomes and family types in the analysis above. The costs of lunchtime and after-school care are partly borne by the parents, partly by the cantons and municipalities. The municipal and cantonal costs are reflected in an increase in public expenditure, which would result in a tax increase ceteris paribus.

Figure 6 shows the relative change in income taxes in cantons with regulation compared to those without for different income levels. There is a separate tax schedule for married couples and for singles. Furthermore, married couples with children can make different tax deductions than those without children, including deductions of formal childcare costs. Figure 6 displays the results of running Equation 2 separately for each level of income and for married, married with two kids, and single households. Tax^y_{mt} refers to the tax rate on income y in municipality m at time t.

$$tax^y_{mt} = \beta^y + \mu^y_1(provision^y_{mt} \times regulation^y_{ct} \times post_t) + \mu^y_2(regulation^y_{ct} \times post_t) + \rho^y_m + \delta^y_t + v^y_{mt} \quad (2)$$

Each dot shows the coefficient estimate of μ_2 of Equation 2 and its confidence bound. The relative tax rates for married couples with no children and for singles remain fairly constant for low incomes and increase for incomes above median income. For married couples with two children, the relative tax rates only increase at the very top, which is incomes above CHF 200,000. Singles on average experience the largest tax increase and singles are also less likely to vote in support of policies promoting maternal employment in the post-treatment period (Appendix Table A.3). However, the time window considered here is quite large and there might be other changes in cantonal and municipal tax rates that are uncorrelated to the expansion of public childcare. Furthermore, I do not have information on why and how tax rates were adjusted for each municipality.

In a next step, I will look at the canton of Bern separately. I have more detailed data on the costs of lunchtime and after-school care in Bern, which allows for a better understanding of the interaction of public expenditure and vote outcomes.

The total costs of lunchtime and after-school care in the canton of Bern in the year 2013 amount to about CHF 50.7 million, which corresponds to approximately 0.3 percent of total cantonal tax income or CHF 13.- per hour and child. About 24 percent of the costs are born by the parents directly. The remaining CHF 38.8 million correspond to 0.27 percent of total public expenditures or 0.68 percent of total income and wealth tax revenue of the canton of Bern for the year 2013.[19]

[19]Data on tax revenue can be downloaded from the website of the Swiss Federal Finance Administration: www.efv.admin.ch/efv/de/home/themen/finanzstatistik/berichterstattung

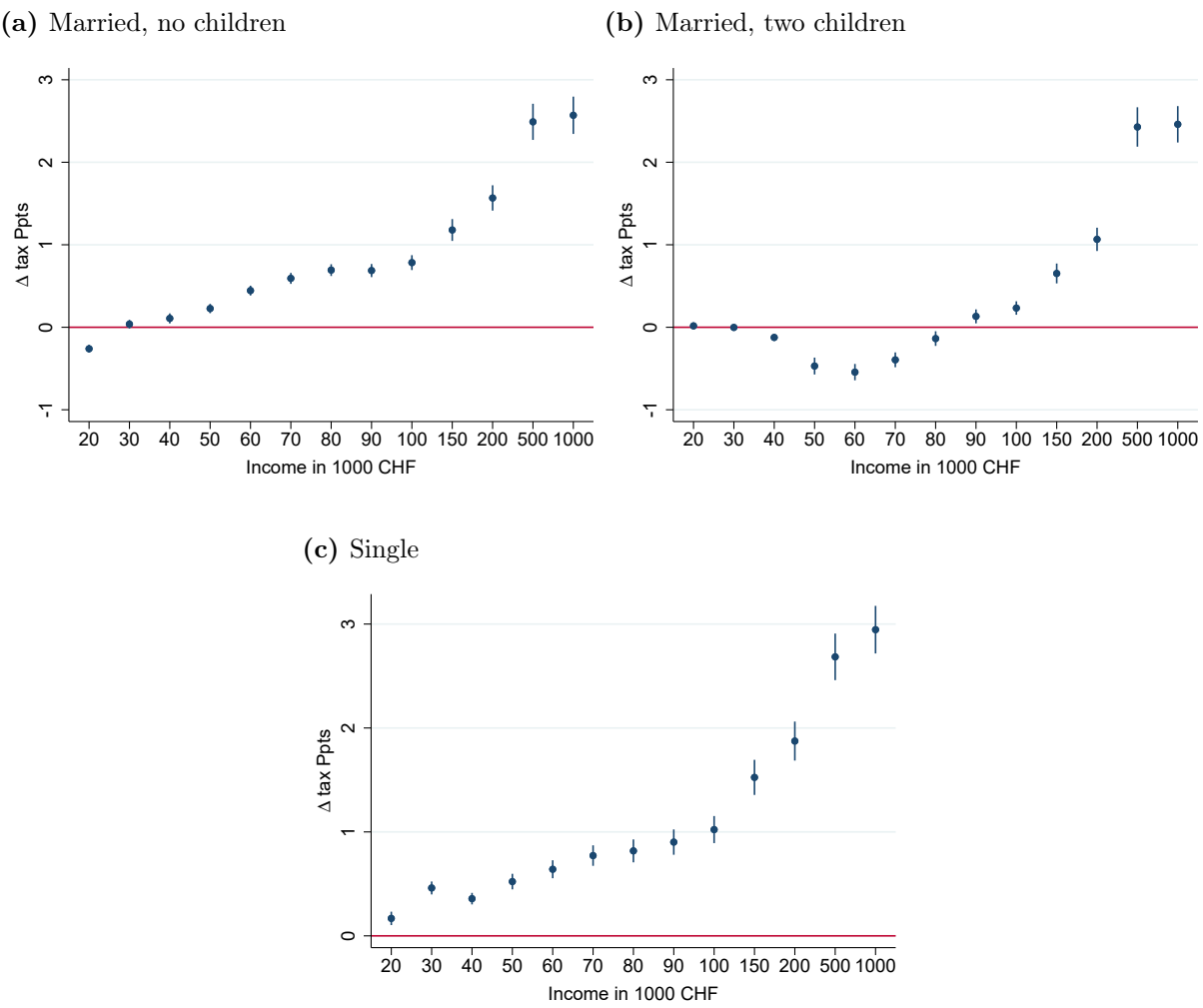

Figure 6: Estimated differential change in cantonal income tax between the cantons with regulation and control cantons for different incomes (CHF 20,000 to CHF 1,000,000) and for different types of tax payers (married, married with two children, single). Each dot shows a coefficient estimate μ_2^y of Equation 2 and its 95 percent confidence interval, i.e. the differential change in income taxes for an individual with income y given they are married, married with two children, or single. The corresponding estimates are displayed in Appendix Table A.8.

If the hypothesis that voter support decreases when taxes are increased holds, I expect that in the group of municipalities with provision of lunchtime and after-school care, the positive effect of the provision on attitudes should decrease as per capita costs borne by the municipality increase.

Figure 7 shows the population weighted means in vote outcomes for municipalities in the canton of Bern and for each of the four ballots. It distinguishes between municipalities with provision of lunchtime and after-school care and per capita costs below the median, and municipalities with provision and costs above the median. Comparing the groups with higher and lower costs, there is no difference in the pre-treatment period. In the post-treatment period, support of family policy related topics increases in the group of

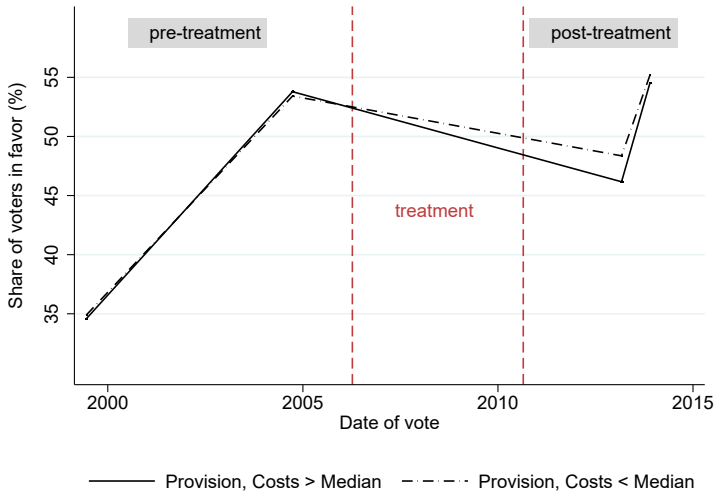

Figure 7: Vote outcomes of bills promoting maternal employment for the canton of Bern in municipalities with regulation but no provision and municipalities with regulation and provision. The results displayed show population weighted means in vote outcomes for the two groups.

municipalities with costs below the median compared to municipalities with costs above the median.

Table 2 introduces costs into the model specified in Equation (1). Since information on costs is only available for the canton of Bern, only municipalities in this cantons are considered for this analysis and for the treated group. The first specification shows the baseline effect for the canton of Bern before the inclusion of costs. The estimate on *provision* is still positive and no different from the effect found in the estimation including the canton of Zurich (Table 1, specification (4)). In specification (2), provision is interacted with a dummy variable indicating costs above median costs for municipalities with provision of lunchtime and after-school care.[20] The estimate now indicates that for the group of municipalities with provision of lunchtime and after-school care and with costs below the median, there is a significant positive effect of the provision on vote outcomes. The effect for municipalities with costs above median costs is not significantly different. An additional test shows that the total provision effect for the group with high costs is not significantly different from zero ($H_0 : \theta_{provision} + \theta_{D.costs>p50\times prov.} = 0$). Specification (3) introduces a continuous variable of per capita costs. It confirms that there is a positive effect of provision on approval rates, which is decreasing in per capita costs. Specification (4) additionally includes the covariates discussed in detail above. As discussed, these covariates might be bad controls. However, now that I am able to control for per capita costs born by the public, there is still a significant and positive effect of provision on support for policies promoting maternal employment, which corroborates the hypothesis that the introduction of lunchtime and after-school care has a direct effect on voter's attitudes.

[20]The p.c. costs per municipality and year and after redistribution range from CHF -17.- to CHF 37.-, with a mean of CHF 6.53.- and median of CHF 4.07.-.

Table 2: DiD estimates for municipalities in the canton of Bern and control cantons, including per capita costs of institutions borne by the public

	(1)	(2)	(3)	(4)
Provision	1.77**	2.39***	2.68***	1.40**
	(0.729)	(0.751)	(0.694)	(0.632)
D.cost> p50 × prov.		-1.46		
		(1.053)		
Cost × prov.			-0.13**	-0.11**
			(0.056)	(0.045)
Municipality FE	Yes	Yes	Yes	Yes
Canton x ballot FE	Yes	Yes	Yes	Yes
Covariates	No	No	No	Yes
Number of mun.	804	804	804	804
Number of obs.	3214	3214	3214	3214

Notes: This table presents the DiD estimate of the provision effect for municipalities in the canton of Bern only. The provision coefficient estimates the differential change in vote outcomes in municipalities introducing lunchtime and after-school care as a consequence of the new regulation compared to those that do not. All four specifications include canton × ballot fixed effects. Specification (2) includes an interaction term of provision and a dummy variable indicating per capita costs of lunchtime and after-school care that surpass median costs. Specifications (3) and (4) include an interaction term of provision and a continuous per capita costs variable. All specifications include municipality fixed effects. Covariates include voter turnout, municipality tax multiplier, immigration rate, emigration rate, and birth rate. In all specifications, population weights are applied to account for the fact that municipalities differ in their size. The numbers in parentheses show the standard errors, clustered at the municipality level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A possible explanation for the differing costs is that not all municipalities receive subsidies from the federal impulse program. Municipalities receiving subsidies from the federal impulse program seem to have lower costs, on average, than municipalities which do not receive subsidies.[21] Why some municipalities do not receive subsidies is unclear. In fact, since lunchtime and after-school care facilities are only opened in case of sufficient demand and since they already have to satisfy cantonal quality guidelines, they also fulfill the requirements to qualify for the impulse program. It is therefore unclear why some municipalities do not receive any subsidies.

The effect of costs on vote outcomes should therefore not be taken at face values. A more detailed analysis of why per capita costs after parental contributions and after wages differ is necessary. Also, a closer investigation of how voters become aware of costs is needed. Due to the data restrictions, the current setting does, unfortunately, not allow

[21] Applying the same sample restrictions as above, there are 27 municipalities which receive subsidies and 88 municipalities which do not receive subsidies. Per capita costs are CHF 7.18.- in municipalities receiving subsidies and CHF 10.09.- in municipalities not receiving subsidies on average.

for a more detailed analysis of the mechanisms. Nevertheless, the costs of institutions in place seem to play an important role in voters' subsequent support of related policies.

6.2 Placebo test

As a robustness test, I use vote outcomes of ballots unrelated to family policy to show that the approach I apply generally works and to make sure the results are not driven by differing trends of treatment and control groups in general. One of the topics voted upon most frequently are healthcare related bills. These thus offer a good opportunity to look at general trends in vote outcomes between the three groups. Vote outcomes of all 14 ballots on healthcare related topics taking place between 1999 and 2014 are displayed in Figure 8.

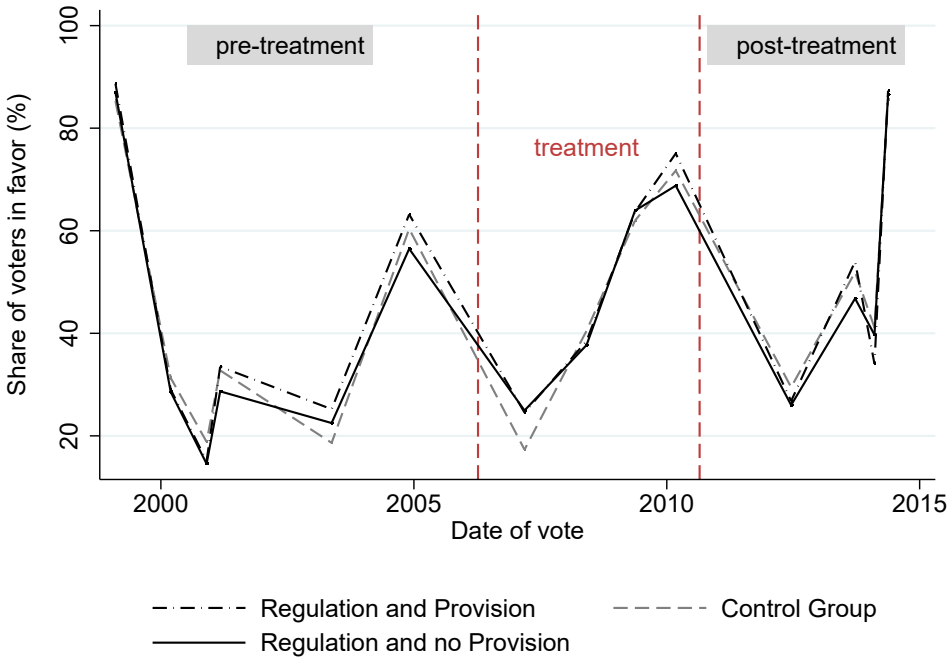

Figure 8: Vote outcomes of 14 bills on healthcare related topics in the municipalities with no regulation (mun. in the control cantons), municipalities with regulation but no provision, and municipalities with regulation and provision. The results displayed show population weighted means in vote outcomes for each of the three groups.

Figure 8 shows population weighted means of vote outcome for the three groups, municipalities in the control cantons, municipalities in the cantons with regulation concerning lunchtime and after-school care with actual provision, and municipalities in the cantons with regulation which do not introduce lunchtime or after-school care. The sample is restricted to municipalities which did not have lunchtime or after-school care in 2004 to mirror the sample used for the main analysis. The graph shows no systematic differences in vote outcomes between the three groups: While there are divergences for some ballots, these are small and don't seem to follow any systematic pattern.

Table 3: Effect of lunchtime and after-school care on vote outcomes on healthcare related topics

	(1)	(2)	(3)	(4)	(5)
Provision	-0.43	0.49	0.12	0.26	0.06
	(0.413)	(0.396)	(0.404)	(0.401)	(0.408)
Regulation	-1.53***	-1.32*	-0.26		
	(0.372)	(0.759)	(0.732)		
Municipality FE	Yes	Yes	Yes	Yes	Yes
Ballot FE	Yes	Yes	Yes	Yes	Yes
Inc. tax	No	Yes	Yes	No	No
Covariates	No	No	Yes	No	Yes
Canton x ballot FE	No	No	No	Yes	Yes
Number of mun.	915	915	915	915	915
Number of obs.	5486	5486	5486	5486	5486

Notes: This table presents the DiD estimate, $\hat{\gamma_1}$ and $\hat{\gamma_2}$, of Equation 1 at the municipal level. Instead of using family policy related ballots, totally independent ballots taking place on the same day are used for the post treatment period. The regulation coefficient shows the differential change in vote outcomes of municipalities in cantons with regulation compared to municipalities in cantons without regulation regarding lunchtime and after-school care in public schools. The provision coefficient estimates the differential change in vote outcomes in municipalities which introduce lunchtime and after-school care as a consequence of the new regulation compared to those that do not. For the three baseline specifications, only municipalities with no childcare in 2004 are included. For the subsample specifications only municipalities where a majority of voters voted against maternity leave and that did not have lunchtime or after-school care prior to the introduction of the new regulation are included, i.e., municipalities which did not display positive attitudes towards an expansion of public investment encouraging maternal employment before the new regulation regarding lunchtime and after-school care was introduced. The numbers in parentheses show the standard errors, clustered at the municipal level. In all specifications, population weights are applied to account for the fact, that municipalities differ in their size. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

I repeat the analysis of family policy bills, now using health bills. I thereby use all referenda on health related bills taking place between 1999 and 2004 for the pre-treatment period and between 2010 and 2014 for the post-treatment period. For easier comparability, I focus on referenda. All referenda are proposals of the parliament, with a majority of the parliament and the federal council already in favor of the bill. This leaves me with a total of six bills that are for instance on an amendment of the law concerning transplantation medicine or stem cell research. The bills are described in detail in Appendix A.1.

Table 3 shows the results of estimating Equation 1 using approval rates for healthcare related bills as the dependent variable. Specification (1) shows small and negative correlation between *provision* and approval rates, which is not significant at any conventional

level. Albeit more than 6 times smaller than in the main analysis, there is also a negative correlation between *regulation* and approval rates for healthcare related bills, which is highly significant. This might indicate a general bias towards the status quo after tax increases. Once I control for cantonal taxes for some incomes and family types, the estimate decreases in size in absolute terms, as shown in specification (2) and becomes very close to zero when I further add the covariates described above. These results indicate, that the tax increases in the cantons of Bern and Zurich compared to the control cantons are reflected in voters being more likely to vote for the status quo. I would therefore generally hesitate to interpret the *regulation* effect as causal, since I cannot fully attribute the changes in the cantons of Bern and Zurich compared to the control cantons to the introduction of the regulation. On the other hand, the estimate on *provision* is very small and insignificant in all specifications when approval rates of health care related bills are used as the dependent variable. This adds additional validity to the approach and the conclusion that these changes within cantons can in fact be attributed to the introduction of lunchtime and after-school care.

7 Conclusion

Many OECD countries devote considerable resources to the provision of public childcare services. The main goal of such efforts is to promote gender equality in employment. As recent literature indicates, the main reason behind the different impacts of children on employment patterns across countries are likely related to gender norms and attitudes towards working mothers (see, e.g., Kleven et al. 2019).

This paper addresses the question whether childcare institutions affect individuals' attitudes towards working mothers. I find that the exogenous introduction of lunchtime and after-school care at public schools increases voters' support of policies by about 2 percentage points and already in a rather short term (3 years after the introduction). This positive effect is, however, decreasing in the costs of new institutions: Voters seem to be very aware that new institutions will give rise to increased public expenditures, which reduces voters' support for additional policies promoting maternal employment. Nevertheless, my results show that in addition to the effect on maternal employment, childcare institutions have the potential of changing attitudes of individuals who are not directly exposed, and therefore of changing norms concerning parenthood. This might also contribute to the explanation why countries with a long tradition of parental leave and public childcare have considerably more positive attitudes towards working mothers, since there is not only the direct effect of the policies but also the indirect effect through individuals' norms.

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A Appendix

A.1 Additional information on ballots

Family policy related ballots

Campaign posters of ballots related to family policy

(a) Maternity Leave. It asks "State Children?" and recommends to vote no.

(b) Family Initiative. Implies crying children if voters support traditional family model and vice versa.

(c) Family Policy. It asks "State Children?" and recommends to vote no.

Figure A.1: Campaigns by the Swiss People Party

Ballots related to health topics

7 February 1999

- The ballot was concerning transplantation medicine.
- Constitutional referendum
- Approval rate: 87.8 percent; turnout: 37.98 percent
- The question was whether an article concerning transplantation medicine should be added to the constitution. The problem was that even though hospitals had been successfully transplanting organs, tissue, and cells for more than thirty years, there was no federal law regulating these practices. There were some cantonal laws in place but those varied substantially between cantons and were missing important aspects. In other cantons there was no regulation whatsoever. The new constitutional article was going to include regulations on how the federation planned to protect human dignity, personality, and health of the patient and the donor, as well as how organs should be allocated rightfully. Also, the article was to prevent malpractice by forbidding trade of organs and targeted donations.

28 November 2004

- Ballot concerning stem cell research
- Approval rate: 66.4 percent; turnout: 37.02 percent
- Legislative referendum
- The bill proposed a new law concerning research with stem cells. The new law was going to make embryonal stem cell research possible in Switzerland. Among other things, it was going to require each research project to be evaluated concerning ethical and scientific criteria. Also, stem cells for research projects are only allowed to be harvested if derived from embryos which developed from eggs fertilized in vitro, but which could not be used for a pregnancy.

7 March 2010

- Ballot concerning research with human subjects
- Approval rate: 77.2 percent; turnout: 45.49 percent
- Constitutional referendum
- The bill proposed a constitutional article regulating research with human subjects. At the federal level, there are only regulations concerning some parts of this research. Most of the responsibilities are at the cantonal level, where there are large disparities, with some cantons not having any regulations in place whatsoever. The new article establishes that research with human subjects can only be undertaken with their full consent and and only allows research with children or other vulnerable

individuals only in case that the findings cannot be realized with consenting adults. Furthermore, the article stipulates that the risks and strain on participants must be in balance with the benefit of the research project. Also, the article establishes ethical guidelines and guidelines concerning the protection of participants' dignity.

17 June 2012

- Ballot concerning statutory health insurance
- Approval rate: 24.0 percent; turnout: 38.65 percent
- Legislative referendum
- Every person living in Switzerland must have health insurance. One can choose between different insurance policies, differing in the deductible and restrictions concerning the free choice of doctor or hospital and accordingly, the insurance premiums. The bill proposed the implementation of new healthcare networks with doctors, pharmacies, hospitals, nursing homes, and midwives. Patients would be treated within these networks, which would promote better cooperation between healthcare providers.

22. September 2013

- Ballot concerning amendment of epidemics law
- Approval rate: 60 percent; turnout: 46.76 percent
- Legislative referendum
- The currently valid law concerning epidemic diseases dated back to 1970 and did not provide sufficient protection against transmittable diseases. The new law was going to provide the ground on which transmittable diseases could be identified in a timely manner and fought efficiently, and new measures against the increasing problem of antibiotic resistance implemented. Also, responsibilities would be more clearly assigned between cantonal and federal governments.

18. Mai 2014

- Ballot concerning primary health care
- Approval rate: 88.1 percent; turnout: 55.85 percent
- Constitutional referendum (counter proposal to a popular initiative demanding the support of primary care physicians)
- The proposed constitutional article was going to promote primary health care in general and specifically primary care physicians. The parliament proposed this article as a reaction to the initiative "Yes to primary health care" (Ja zur Hausarztmedizin), submitted by primary care physicians. As a reaction to the proposed article, the physicians withdrew their initiative.

A.2 Tables and figures

Post-vote survey

In order to gain some insight into how personal characteristics and attitudes towards gender equality are reflected in vote outcomes, I use data of post-vote surveys provided by FORS Lausanne. The post-vote surveys are conducted after each federal ballot with a representative sample of about 1,500 eligible voters and take place in the two to three weeks following a ballot. Surveyed topics include individual socioeconomic characteristics, political opinions and habits, as well as various aspects related to the decision to vote on certain topics.

The tables in this section show statistics from the post vote surveys, conducted after each vote. Data from individuals from all parts of Switzerland are considered. Table A.1 shows descriptive statistics of the surveys conducted after each of the four ballots considered in this paper. The table further indicates the gender difference, as well as whether the difference is statistically significant. The table shows that the shares of men and women with tertiary education have increased over time, but while the increase was rather small for men, the fraction of women with tertiary education has increased from 6.6% in 1999 to about 15% in 2013. Nevertheless, the gender difference is still more than 10ppt and remains statistically significant for all four ballots considered. The only other variable which is significant in all four ballots is employment: men are about 14ppt more likely to be employed than women. The employment fractions seem very low at first sight. However, in the post vote survey, everybody who does not have any formal employment is considered not employed. This includes retired individuals, who constitute about one third of the total sample.

All the variables displayed in table A.1 are also considered in the regressions in table A.3. The estimates show a significant positive effect of age and whether an individual is employed on the probability that somebody votes yes. In the maternity leave ballot in 1999, older people were less likely to vote yes. In the 2004 maternity leave and the family policy ballot, there is a positive correlation between tertiary education and the probability to vote yes. However, the biggest correlation is found between party affinity and the probability to vote yes: voters describing themselves as affiliated with the Social Party (SP), the biggest left wing party in CH, are 21% to 42% more likely to vote yes, whereas voters describing themselves as affiliated with the Swiss People Party (SVP), the biggest right wing party, are 35% to 42% less likely to vote yes. Affiliation with other parties does not have any correlation with voting behavior.

Table A.1: Descriptive statistics of post-vote surveys

	Men	Women	Diff.	Std. Error	Obs. Men	Obs. Women
Maternity Leave I						
Yes Share	0.339	0.380	-0.041	0.040	236	358
Tertiary Educ.	0.203	0.067	0.136***	0.029	236	358
Employed	0.581	0.430	0.150***	0.042	236	358
Age/10	5.374	5.291	0.083	0.139	236	358
Retired	0.297	0.246	0.051	0.038	236	358
Married	0.708	0.656	0.051	0.039	236	358
Income $<$ CHF $5,000$	0.335	0.413	-0.079*	0.040	236	358
Income CHF $5,000 - 11,000$	0.492	0.455	0.036	0.042	236	358
Income $>$ CHF $11,000$	0.174	0.131	0.042	0.031	236	358
Maternity Leave II						
Yes Share	0.656	0.604	0.052	0.044	209	270
Tertiary Educ.	0.239	0.126	0.113***	0.036	209	270
Employed	0.641	0.489	0.152***	0.045	209	270
Age/10	5.062	5.386	-0.324**	0.161	209	270
Retired	0.234	0.270	-0.036	0.040	209	270
Married	0.598	0.619	-0.020	0.045	209	270
Income $<$ CHF $5,000$	0.368	0.437	-0.069	0.045	209	270
Income CHF $5,000 - 11,000$	0.445	0.419	0.026	0.046	209	270
Income $>$ CHF $11,000$	0.187	0.144	0.042	0.034	209	270
Family Policy						
Yes Share	0.469	0.507	-0.037	0.045	213	304
Tertiary Educ.	0.277	0.168	0.109***	0.037	213	304
Employed	0.563	0.454	0.109**	0.044	213	304
Age/10	5.571	5.703	-0.132	0.137	213	304
Retired	0.291	0.359	-0.067	0.042	213	304
Married	0.648	0.599	0.049	0.043	213	304
Income $<$ CHF $5,000$	0.315	0.378	-0.064	0.042	213	304
Income CHF $5,000 - 11,000$	0.610	0.563	0.048	0.044	213	304
Income $>$ CHF $11,000$	0.075	0.059	0.016	0.023	213	304
Family Initiative						
Yes Share	0.522	0.592	-0.070	0.045	203	294
Tertiary Educ.	0.256	0.136	0.120***	0.037	203	294
Employed	0.547	0.401	0.145***	0.045	203	294
Age/10	5.729	5.691	0.037	0.143	203	294
Retired	0.296	0.378	-0.082*	0.043	203	294
Married	0.704	0.588	0.116***	0.043	203	294
Income $<$ CHF $5,000$	0.296	0.435	-0.140***	0.043	203	294
Income CHF $5,000 - 11,000$	0.601	0.507	0.094**	0.045	203	294
Income $>$ CHF $11,000$	0.103	0.058	0.046*	0.025	203	294

Notes: This table shows descriptive statistics for the four ballots considered, as well as whether there is a significant difference between men and women.

Table A.2: Post-Vote Survey: Correlation between the probability to vote yes and attitudes towards gender equality

Bill	Mat. Leave I	Mat. Leave II	Fam. Pol.	Fam. Init.
Gender Equality	0.17***	0.19***	0.17***	0.07
	(0.04)	(0.04)	(0.04)	(0.05)
Age/10	-0.22**	0.00	-0.04	0.20**
	(0.10)	(0.09)	(0.10)	(0.10)
Age^2	0.02*	-0.00	0.00	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Tertiary Educ.	0.03	0.11*	0.09*	-0.00
	(0.06)	(0.06)	(0.05)	(0.06)
Female	0.07	-0.02	0.05	0.08*
	(0.04)	(0.04)	(0.05)	(0.05)
Employed	0.11**	0.02	0.00	0.12**
	(0.05)	(0.05)	(0.06)	(0.06)
Income CHF $5,000 - 11,000$	-0.03	-0.00	-0.00	0.09*
	(0.05)	(0.05)	(0.05)	(0.05)
Income > CHF $11,000$	-0.02	-0.02	-0.14	0.20**
	(0.06)	(0.07)	(0.10)	(0.09)
Retired	-0.01	-0.02	0.00	0.13
	(0.09)	(0.10)	(0.09)	(0.09)
Married	0.01	0.00	0.11**	-0.14***
	(0.05)	(0.05)	(0.05)	(0.05)
Constant	0.79***	0.62***	0.46*	-0.19
	(0.23)	(0.20)	(0.26)	(0.24)
Number of Observations	569	469	511	490
R-Square	0.07	0.08	0.05	0.06

Notes: Correlation between the probability to vote "Yes" in the four bills considered and personal attitudes towards gender equality. Calculations draw on post-vote surveys conducted with a random sample of Swiss voters. The table shows that attitudes towards gender equality are an important driver of vote results in the ballots considered. Gender equality is a dummy variable based on the question "Are you in favor of Switzerland actively promoting female equality to men (survey question A91h$\leq$3) or in favor of Switzerland favoring neither men nor women (survey question $3 < A91 <= 6$).

Table A.3: Post-Vote Survey: Correlation between the probability to vote yes and certain personal characteristics

Bill	Mat. Leave I	Mat. Leave II	Fam. Pol.	Fam. Init.	All
Age/10	-0.25***	-0.06	-0.01	0.18*	-0.05
	(0.09)	(0.08)	(0.10)	(0.09)	(0.04)
Age^2	0.02**	0.00	-0.00	-0.01	0.00
	(0.01)	(0.01)	(0.01)	(0.01)	(0.00)
Tertiary Educ.	0.03	0.09*	0.11**	0.00	0.06**
	(0.06)	(0.05)	(0.05)	(0.06)	(0.03)
Female	0.04	-0.02	0.04	0.06	0.03
	(0.04)	(0.04)	(0.04)	(0.05)	(0.02)
Employed	0.08*	0.03	0.01	0.14**	0.07***
	(0.05)	(0.05)	(0.06)	(0.06)	(0.03)
Income CHF $5,000 - 11,000$	-0.04	-0.00	-0.01	0.05	-0.01
	(0.05)	(0.05)	(0.05)	(0.05)	(0.02)
Income $>$ CHF $11,000$	-0.05	-0.02	-0.15*	0.18**	-0.02
	(0.06)	(0.06)	(0.09)	(0.08)	(0.03)
Retired	-0.03	-0.02	0.03	0.16*	0.06
	(0.09)	(0.09)	(0.09)	(0.09)	(0.04)
Married	0.02	0.02	0.08*	-0.11**	0.00
	(0.04)	(0.04)	(0.05)	(0.05)	(0.02)
Affinity CVP	-0.02	0.14	0.11	0.10	0.07
	(0.07)	(0.11)	(0.08)	(0.09)	(0.04)
Affinity FDP	0.02	-0.03	0.05	-0.01	0.01
	(0.08)	(0.08)	(0.07)	(0.09)	(0.04)
Affinity SP	0.42***	0.34***	0.22***	0.21***	0.29***
	(0.06)	(0.04)	(0.06)	(0.06)	(0.03)
Affinity SVP	-0.31***	-0.42***	-0.25***	-0.27***	-0.32***
	(0.04)	(0.06)	(0.06)	(0.06)	(0.03)
Constant	0.97***	0.81***	0.49**	-0.08	0.46***
	(0.21)	(0.18)	(0.24)	(0.22)	(0.11)
Ballot FE	No	No	No	No	Yes
Number of Observations	594	479	517	497	2087
R-Square	0.17	0.24	0.09	0.13	0.16

Notes: Correlation between probability to vote yes and certain personal characteristics based on post-vote surveys. All four ballots are considered. Both models include ballot fixed effects.

Descriptive statistics

Table A.4: Descriptive Statistics

	Mat. Leave I		Mat. Leave II		Family Policy		Family Init.	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Regulation and Provision								
Share of Yes votes	31.41	(8.13)	49.15	(8.76)	44.05	(8.29)	51.88	(7.47)
Tax multiplier	48.91	(57.54)	44.62	(53.31)	43.21	(51.64)	43.21	(51.64)
Share of SPP voters	37.69	(11.24)	38.26	(10.64)	36.10	(8.64)	36.10	(8.64)
Share of SP voters	22.29	(6.30)	22.79	(6.61)	15.29	(4.88)	15.29	(4.88)
Voter turnout	47.05	(5.27)	53.69	(6.15)	44.78	(6.36)	54.67	(7.26)
Births in % of pop	1.06	(0.26)	4.80	(0.84)	12.37	(2.08)	12.37	(2.08)
Deaths in % of pop	0.82	(0.31)	3.86	(1.15)	10.08	(3.11)	10.08	(3.11)
Immigrants in % of pop	7.49	(2.23)	36.18	(8.02)	97.61	(18.62)	97.61	(18.62)
Emigrants in % of pop	7.10	(2.09)	33.43	(7.14)	89.08	(16.96)	89.08	(16.96)
Population in 1000	3.78	(4.58)	3.93	(4.66)	4.32	(5.19)	4.32	(5.19)
Number of Mun.	192		192		192		192	
Regulation and No Provision								
Share of Yes votes	28.94	(11.75)	44.21	(11.15)	38.99	(10.99)	44.98	(8.53)
Tax multiplier	20.24	(43.07)	18.22	(40.08)	17.83	(39.22)	17.83	(39.22)
Share of SPP voters	47.20	(12.89)	46.77	(12.28)	43.53	(10.82)	43.53	(10.82)
Share of SP voters	19.00	(8.13)	18.66	(7.94)	12.09	(5.55)	12.09	(5.55)
Voter turnout	46.50	(8.25)	50.75	(8.41)	43.61	(6.82)	55.67	(10.40)
Births in % of pop	1.08	(0.45)	4.83	(1.25)	12.94	(2.68)	12.94	(2.68)
Deaths in % of pop	0.95	(0.54)	4.29	(1.32)	11.88	(3.32)	11.88	(3.32)
Immigrants in % of pop	6.35	(2.56)	31.40	(8.75)	89.44	(20.01)	89.44	(20.01)
Emigrants in % of pop	6.40	(2.31)	30.60	(7.78)	87.71	(19.29)	87.71	(19.29)
Population in 1000	0.91	(0.85)	0.92	(0.86)	0.95	(0.91)	0.95	(0.91)
Number of Mun.	234		234		233		233	
No Regulation								
Share of Yes votes	22.11	(6.05)	37.77	(8.06)	39.96	(6.93)	50.08	(6.74)
Tax multiplier	121.74	(70.71)	116.82	(63.79)	104.60	(54.56)	104.60	(54.56)
Share of SPP voters	34.17	(10.28)	37.99	(10.94)	38.59	(9.01)	38.59	(9.01)
Share of SP voters	13.90	(6.92)	15.08	(7.53)	13.12	(6.31)	13.12	(6.31)
Voter turnout	47.83	(7.65)	55.42	(6.77)	46.39	(7.54)	53.84	(6.33)
Births in % of pop	1.16	(0.34)	5.05	(1.02)	12.53	(2.85)	12.53	(2.85)
Deaths in % of pop	0.72	(0.28)	3.46	(0.95)	8.75	(2.62)	8.75	(2.62)
Immigrants in % of pop	6.78	(2.05)	32.73	(7.85)	90.06	(24.25)	90.06	(24.25)
Emigrants in % of pop	6.63	(1.86)	31.08	(7.22)	82.12	(22.80)	82.12	(22.80)
Population in 1000	2.76	(3.31)	2.87	(3.44)	3.21	(3.77)	3.21	(3.77)
Number of Mun.	453		453		453		453	

Notes: This table shows descriptive statistics for the municipalities included in the main analysis and for each of the three groups (no regulation, regulation and provision, regulation and no provision.

Analysis of covariates

Table A.5: DiD estimates of the introduction of lunchtime and after-school care on covariates

Dep. var.	Turnout	Births	Immig.	Emig.
	(1)	(2)	(3)	(4)
Provision	-2.02***	-0.26	6.32***	1.22
	(0.54)	(0.21)	(2.00)	(1.97)
Regulation	2.64***	0.49	3.04	7.60***
	(0.41)	(0.30)	(2.33)	(2.17)
Municipality FE	Yes	Yes	Yes	Yes
Ballot FE	Yes	Yes	Yes	Yes
Number of Mun.	915	922	922	922
Number of Obs.	3658	3688	3688	3688

Notes: This table presents the DiD estimates, $\hat{\gamma_1}$ and $\hat{\gamma_2}$, of Equation (1), but with variables other than vote outcomes as the dependent variable. The regulation coefficient shows the differential change in these covariates of municipalities in cantons with regulation compared to municipalities in cantons without regulation regarding lunchtime and after-school care in public schools, controlling for the differences in provision within the treated cantons. The provision coefficient estimates the differential change in the covariates in municipalities which introduce lunchtime and after-school care as a consequence of the new regulation compared to those which do not. The numbers in parentheses show the standard errors, clustered at the municipal level. In all specifications, population weights are applied to account for the fact, that municipalities differ in their size. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.6: DiD estimates of the introduction of lunchtime and after-school care on a set of covariates, including cantonal time trends

Dep. var.	Tax Multiplier	Turnout	Births	Immig.	Emig.
	(1)	(2)	(3)	(4)	(5)
Provision	0.45	-1.96***	-0.49*	2.93	-1.19
	(0.63)	(0.66)	(0.27)	(2.06)	(2.16)
Municipality FE	Yes	Yes	Yes	Yes	Yes
Canton x ballot FE	Yes	Yes	Yes	Yes	Yes
Number of Mun.	922	915	922	922	922
Number of Obs.	3688	3658	3688	3688	3688

Notes: This table presents the DiD estimates, $\hat{\gamma_1}$ and $\hat{\gamma_2}$, of Equation (1), but with variables other than vote outcomes as the dependent variable. The regulation coefficient shows the differential change in these covariates of municipalities in cantons with regulation compared to municipalities in cantons without regulation regarding lunchtime and after-school care in public schools, controlling for the differences in provision within the treated cantons. The provision coefficient estimates the differential change in the covariates in municipalities which introduce lunchtime and after-school care as a consequence of the new regulation compared to those which do not. The *Regulation* coefficient can no longer be identified in the presence of canton × Ballot FE due to collinearity. The numbers in parentheses show the standard errors, clustered at the municipal level. In all specifications, population weights are applied to account for the fact, that municipalities differ in their size. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.7: DiD estimates: Effect of lunchtime and after-school care on vote outcomes

	(1)	(2)	(3)	(4)
Provision	1.58***	1.27**	1.08*	0.82
	(0.556)	(0.599)	(0.550)	(0.554)
Regulation	-8.71***	-7.89***	-5.77***	
	(0.457)	(0.500)	(0.954)	
Tax multiplier	-0.01*	-0.00		0.03**
	(0.006)	(0.006)		(0.015)
Voter turnout	-0.27***	-0.16***	-0.26***	-0.26***
	(0.035)	(0.029)	(0.040)	(0.037)
Births in % of pop	-0.25***	-0.14**	-0.21***	-0.26***
	(0.069)	(0.065)	(0.067)	(0.067)
Immigrants in % of pop	0.12***	0.14***	0.11***	0.09***
	(0.020)	(0.020)	(0.019)	(0.019)
Emigrants in % of pop	-0.06***	-0.09***	-0.05**	-0.04*
	(0.022)	(0.023)	(0.021)	(0.021)
Municipality FE	Yes	Yes	Yes	Yes
Ballot FE	Yes	Yes	Yes	Yes
Inc. tax	No	No	Yes	No
Canton x ballot FE	No	No	No	Yes
Number of mun.	915	742	915	915
Number of obs.	3658	2966	3658	3658

Notes: This table presents the DiD estimates, $\hat{\gamma_1}$ and $\hat{\gamma_2}$, of Equation (1). The regulation coefficient shows the differential change in vote outcomes of municipalities in cantons with regulation compared to municipalities in cantons without regulation regarding lunchtime and after-school care in public schools, controlling for the differences in provision within the treated cantons. The provision coefficient estimates the differential change in vote outcomes in municipalities which introduce lunchtime and after-school care as a consequence of the new regulation compared to those which do not. *Inc. tax* consists of the income tax (cantonal + municipality + church taxes) for singles, married couples with no children, and married couples with two children, each for yearly net incomes of CHF 80,000.-, 100,000.-, 150,000.-, and 200,000.-. In specification (4), *Canton* $\times$ *municipality FE* are applied, and the *Regulation* coefficient can no longer be identified due to collinearity. In all specifications, population weights are applied to account for the fact that municipalities differ in their population. The numbers in parentheses show the standard errors, clustered at the municipal level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Tax changes

Table A.8: DiD estimates: Effect of lunchtime and after-school care on cantonal taxes

Household inc. (in CHF)	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000	100,000	150,000	200,000	500,000	1,000,000
Married, no children													
Provision	0.11***	0.18***	0.14***	0.03***	-0.06***	-0.11***	-0.11***	-0.08***	-0.09***	-0.18***	-0.28***	-0.51***	-0.60***
	(0.023)	(0.040)	(0.030)	(0.007)	(0.013)	(0.023)	(0.024)	(0.017)	(0.019)	(0.039)	(0.061)	(0.111)	(0.130)
Regulation	-0.26***	0.04	0.11***	0.23***	0.44***	0.59***	0.69***	0.69***	0.78***	1.18***	1.57***	2.49***	2.57***
	(0.024)	(0.027)	(0.031)	(0.029)	(0.030)	(0.034)	(0.036)	(0.041)	(0.046)	(0.068)	(0.078)	(0.112)	(0.115)
Married, two children													
Provision	0.00***	0.04***	0.08***	0.32***	0.32***	0.24***	0.18***	0.07***	0.03***	-0.04***	-0.14***	-0.47***	-0.58***
	(0.000)	(0.009)	(0.017)	(0.070)	(0.069)	(0.052)	(0.040)	(0.014)	(0.006)	(0.008)	(0.030)	(0.102)	(0.126)
Regulation	0.02***	-0.00	-0.12***	-0.47***	-0.54***	-0.39***	-0.14***	0.13***	0.23***	0.65***	1.07***	2.43***	2.46***
	(0.004)	(0.014)	(0.018)	(0.052)	(0.050)	(0.046)	(0.045)	(0.043)	(0.042)	(0.061)	(0.072)	(0.122)	(0.112)
Single													
Provision	0.14***	-0.05***	-0.08***	-0.16***	-0.19***	-0.22***	-0.21***	-0.22***	-0.22***	-0.33***	-0.39***	-0.57***	-0.63***
	(0.031)	(0.010)	(0.017)	(0.034)	(0.041)	(0.047)	(0.045)	(0.048)	(0.048)	(0.072)	(0.086)	(0.123)	(0.137)
Regulation	0.17***	0.46***	0.36***	0.52***	0.64***	0.77***	0.82***	0.90***	1.02***	1.52***	1.87***	2.68***	2.95***
	(0.033)	(0.032)	(0.028)	(0.038)	(0.044)	(0.050)	(0.056)	(0.062)	(0.066)	(0.086)	(0.096)	(0.114)	(0.117)
Municipality FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ballot FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of mun.	922	922	922	922	922	922	922	922	922	922	922	922	922
Number of obs.	3688	3688	3688	3688	3688	3688	3688	3688	3688	3688	3688	3688	3688

Notes: This table presents the DiD estimates, $\hat{\mu_1}$ and $\hat{\mu_2}$, of Equation (2). The regulation coefficient shows the differential change in cantonal taxes of municipalities in cantons with regulation compared to municipalities in cantons without regulation regarding lunchtime and after-school care in public schools, controlling for the differences in provision within the treated cantons. The provision coefficient estimates the differential change in cantonal taxes in municipalities which introduce lunchtime and after-school care as a consequence of the new regulation compared to those which do not. In all specifications, population weights are applied to account for the fact that municipalities differ in their population. The numbers in parentheses show the standard errors, clustered at the municipal level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Descriptives for municipalities in the canton of Bern

Table A.9: Descriptive statistics for municipalities with the canton of Bern only

	Mat. Leave I		Mat. Leave II		Family Policy		Family Init.	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
No Provision								
Share of Yes votes	29.06	(12.55)	44.51	(11.59)	38.74	(11.65)	44.48	(8.75)
Tax multiplier	2.59	(0.23)	1.80	(0.22)	1.73	(0.20)	1.73	(0.20)
Share of SPP voters	46.63	(13.34)	46.37	(12.81)	43.42	(11.19)	43.42	(11.19)
Share of SP voters	19.24	(8.43)	18.93	(8.26)	12.23	(5.83)	12.23	(5.83)
Voter turnout	45.47	(8.33)	48.74	(7.19)	42.36	(6.28)	54.92	(10.89)
Births in % of pop	1.08	(0.47)	4.80	(1.23)	12.95	(2.78)	12.95	(2.78)
Deaths in % of pop	1.00	(0.56)	4.50	(1.27)	12.49	(3.13)	12.49	(3.13)
Immigrants in % of pop	6.16	(2.63)	30.74	(8.94)	88.26	(20.38)	88.26	(20.38)
Emigrants in % of pop	6.35	(2.34)	30.43	(7.87)	87.55	(19.76)	87.55	(19.76)
Population in 1000	0.87	(0.85)	0.88	(0.85)	0.90	(0.87)	0.90	(0.87)
Number of Mun.	200		200		199		199	
Cost > Median								
Share of Yes votes	33.19	(11.30)	51.88	(11.22)	44.07	(11.25)	51.47	(9.07)
Tax multiplier	2.44	(0.28)	1.71	(0.23)	1.63	(0.21)	1.63	(0.21)
Share of SPP voters	35.29	(14.67)	35.71	(13.74)	33.88	(11.01)	33.88	(11.01)
Share of SP voters	23.17	(7.40)	23.82	(7.76)	16.04	(5.84)	16.04	(5.84)
Voter turnout	46.99	(5.75)	51.58	(5.61)	43.13	(5.23)	54.57	(8.67)
Births in % of pop	1.02	(0.28)	4.57	(0.97)	11.92	(2.45)	11.92	(2.45)
Deaths in % of pop	0.89	(0.35)	4.24	(1.05)	11.20	(3.08)	11.20	(3.08)
Immigrants in % of pop	6.31	(1.45)	33.21	(6.25)	90.15	(18.42)	90.15	(18.42)
Emigrants in % of pop	6.46	(1.61)	31.42	(5.59)	83.35	(16.70)	83.35	(16.70)
Population in 1000	2.85	(2.48)	2.91	(2.53)	3.10	(2.67)	3.10	(2.67)
Number of Mun.	57		57		57		57	
Cost ≤ Median								
Share of Yes votes	30.35	(7.68)	48.89	(8.18)	42.96	(8.04)	50.57	(7.00)
Tax multiplier	2.56	(0.19)	1.77	(0.19)	1.68	(0.18)	1.68	(0.18)
Share of SPP voters	35.09	(9.69)	35.85	(8.87)	35.18	(7.42)	35.18	(7.42)
Share of SP voters	24.54	(6.23)	25.66	(6.22)	16.23	(5.19)	16.23	(5.19)
Voter turnout	45.37	(5.03)	49.79	(4.95)	42.03	(5.35)	51.85	(7.01)
Births in % of pop	1.03	(0.25)	4.71	(0.71)	12.05	(2.16)	12.05	(2.16)
Deaths in % of pop	0.95	(0.28)	4.53	(1.04)	11.70	(2.95)	11.70	(2.95)
Immigrants in % of pop	7.04	(2.45)	34.71	(9.52)	94.36	(20.86)	94.36	(20.86)
Emigrants in % of pop	6.89	(2.89)	32.76	(8.85)	87.94	(19.90)	87.94	(19.90)
Population in 1000	3.78	(6.48)	3.84	(6.47)	4.08	(7.03)	4.08	(7.03)
Number of Mun.	58		58		58		58	

Notes: This table shows descriptive statistics for municipalities in the canton of Bern included in the analyses. It distinguishes between municipalities with no provision, municipalities with provision and costs above median costs, and municipalities with provision and costs smaller or equal to median costs. Here, costs refer to per capita costs of lunchtime and after-school care after parental contributions and after redistribution between municipalities.